the four hours' duration of melting down, whilst in the further four hours only 2'37 per cent, oxygen was introduced into the bath by action on the molten metal. It further shows (as was apparent in the large furnace) that the reducing agents in the mefcal, beginning with final melting down, and continuing up to a certain limit, possess the faculty of using up more

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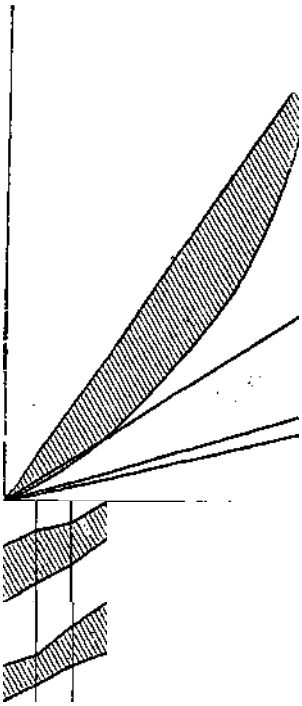
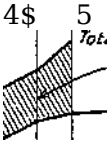
£'80% 0



4$ 5 5$ 6 • FIGU 13.



~* O combined with fe in Slag

QforSi+Mn+P+C

OforS/' +

Of0~ Si- Mn 0 Tor Si

7 // S 8$

oxygen than is introduced by the working of the furnace They removed this oxygen from the slag which, up to the end of the two hours after melting down, became poorer in oxygen. At this time the carbon content of the metal reached 0*075 and the phosphorus content 0*70 per cent., whilst the Fe content of the slag still only amounted to 5'47 per cent, From this it is manifest that a state of equilibrium was attained, since from this period onwards the carbon content B.S,

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